

### REMARKS

Claims 1-16 and 21-25 are pending in the application.

In the Advisory Action, the final rejections of all pending claims are maintained. Specifically, claims 1, 6, 9, 12-16, and 21-25 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Izumi (U.S. Patent US 6,466,348 B1) in view of Admitted Prior Art (page 15, lines 15-18, hereinafter "APA") and further in view of Sato (U.S. Patent US 5,491,686, hereinafter "Sato"). Claims 2-5, 7-8, and 10-11 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Izumi in view of APA and Sato and further in view of Darcie (U.S. Patent US 4,701,904, hereinafter "Darcie").

Each of the various rejections is overcome by various amendments and/or arguments that are presented.

Any amendments to any claim for reasons other than as expressly recited herein as being for the purpose of distinguishing such claim from known prior art are not being made with an intent to change in any way the literal scope of such claims or the range of equivalents for such claims. They are being made simply to present language that is better in conformance with the form requirements of Title 35 of the United States Code or is simply clearer and easier to understand than the originally presented language. Any amendments to any claim expressly made in order to distinguish such claim from known prior art are being made only with an intent to change the literal scope of such claim in the most minimal way, i.e., to just avoid the prior art in a way that leaves the claim novel and not obvious in view of the cited prior art, and no equivalent of any subject matter remaining in the claim is intended to be surrendered.

Also, since a dependent claim inherently includes the recitations of the claim or chain of claims from which it depends, it is submitted that the scope and content of any dependent claims that have been herein rewritten in independent form is exactly the same as the scope and content of those claims prior to having been rewritten in independent form. That is, although by convention such rewritten claims are labeled herein as having been "amended," it is submitted that only the format, and not the content, of these claims has been changed. This is true whether a dependent claim has been rewritten to expressly include the limitations of those claims on which it formerly depended or whether an independent claim has been rewriting to include the limitations of claims that previously depended from it. Thus, by such rewriting no equivalent of

any subject matter of the original dependent claim is intended to be surrendered. If the Examiner is of a different view, he is respectfully requested to so indicate.

## **REJECTIONS**

### **35 U.S.C. §103**

#### **Claims 1, 6, 9, 12-16, and 21-25**

Claims 1, 6, 9, 12-16, and 21-25 are rejected under 35 U.S.C. §103(a) as being unpatentable over Izumi in view of APA and further in view of Sato. Applicants respectfully traverse the rejection.

Independent claims 9 and 25 have been amended to further clarify Applicants' invention. The amendment is fully supported by at least the following sections in the original specification, e.g., p. 14, lines 24-26. As such, no new matter has been added.

Independent claim 1 recites a node that includes a first optical block and a second optical block. The first optical block comprises, in addition to first, second, third and fourth devices,:

"a fifth device for providing a third optical signal at a second frequency, the third optical signal having third information modulated on it, a sixth device for multiplexing the second and third optical signals and placing the multiplexed second and third optical signals on the network as upstream optical signal."

The second optical block comprises, in addition to first, second, third and fourth devices:

"a fifth device for providing a third optical signal at a second frequency, the third optical signal having third information modulated on it, a sixth device for multiplexing the second and third optical signals and placing the multiplexed second and third optical signals on the network as downstream optical signal."

Without conceding whether the various components in Izumi cited in the Final Office Action of February 15, 2007 are properly analogous to Applicants' first, second, third and fourth devices, Applicants submit that independent claim 1 is not obvious over Izumi in view of APA and Sato because the Office Action failed to identify the elements in Izumi, APA or Sato that may correspond to the fifth and sixth devices in claim 1.

The Advisory Action also cited the wave synthesizer 344 in Izumi's Fig. 21 for "selecting or combining signals." However, this synthesizer 344 does not provide any third optical signal at a second frequency, and it does not multiplex the second and third optical signal and places the multiplexed signal as upstream or downstream signal.

Thus, there is still no teaching in Izumi, APA and Sato for the fifth and sixth devices, as provided in Applicants' claim 1. Therefore, claim 1 is not obvious over the cited references.

Independent claim 9 has been amended to clarify that "the first information in said first upstream optical signal and the first information in said first downstream optical signal are identical."

As previously discussed (e.g., Applicants' response of March 29, 2007, pages 10-11), Izumi's apparatus of Fig. 21 is designed for automatic gain control that is specific to the power levels in the respective upstream and downstream signals. For example, the power level of the upstream signal is uniquely related to the hardware components used for the upstream traffic, and the power level of the downstream signal is uniquely related to the hardware components used for the downstream traffic. Thus, information contained in at least the monitoring channels will be different between the upstream and downstream signals because each contains information specific to the preceding stage from which the signal comes from. Since the preceding stages are different for upstream and downstream signals, one simply will not expect identical information contained in the upstream and downstream traffic in the case of Izumi.

In addition, Izumi's wave synthesizer 344 in Fig. 21 was cited in the Advisory Action "for selecting or combining signals." Applicants submit that the synthesizer 344 is structurally different from a control device, and furthermore, it does not perform similar functions as Applicants' control device.

Specifically, as illustrated in Izumi's Fig. 21, synthesizer 344 only combines the dropped signals from paths 301 and 304. Applicants are not aware of any teaching in Izumi that the wave synthesizer 344 operates any differently in response to a fault condition as opposed to a no fault condition.

In Applicants' invention, the control device causes, in the case of a fault that results in disruption of the control information, the first information in the upstream and downstream signals to be combined to provide at least one valid copy of the first information; while in the case of no fault, only one of the upstream and downstream signals is selected.

Izumi, on the other hand, teaches only that the wave synthesizer 344 combines the two dropped signals during no fault condition (e.g., normal operation), but does not address the operation mode under a fault condition, e.g., selecting one of two signals.

For reasons set forth above, Applicants submit that Izumi, APA and Sato, even if combined, would not have resulted in Applicants' invention as a whole.

Applicants' claim 9 is therefore patentable over Izumi, APA and Sato.

Independent claim 25 recites features similar to those of claim 9. Thus, claim 25 is also patentable over Izumi, APA and Sato.

Since all of the dependent claims that depend from the independent claims include all the limitations of the respective independent claim from which they ultimately depend, each such dependent claim is also allowable over Izumi, APA and Sato.

Therefore, claims 1, 6, 9, 12-16 and 21-25 are allowable over Izumi, APA and Sato under 35 U.S.C. §103.

**Claims 2-5, 7-8 and 10-11**

Claims 2-5, 7-8, and 10-11 are rejected under 35 U.S.C. §103(a) as being unpatentable over Izumi in view of APA and Sato and further in view of Darcie.

Each ground of rejection applies only to dependent claims, and each is predicated on the validity of the rejection under 35 U.S.C. 103 given Izumi in view of APA and further in view of Sato. Since the rejection under 35 U.S.C. 103 given Izumi in view of APA and further in view of Sato has been overcome, as described hereinabove, and there is no argument put forth by the Office Action that Darcie supplies that which is missing from Izumi in view of APA and further in view of Sato to render the independent claims obvious, these grounds of rejection cannot be maintained.

Therefore, claims 2-5, 7-8 and 10-11 are allowable under 35 U.S.C. §103.

**CONCLUSION**

It is respectfully submitted that the Office Action's rejections have been overcome and that this application is now in condition for allowance. Reconsideration and allowance are, therefore, respectfully solicited.

If, however, the Examiner still believes that there are unresolved issues, the Examiner is invited to call Eamon Wall at (732) 530-9404 so that arrangements may be made to discuss and resolve any such issues.

Respectfully submitted,

Dated: \_\_\_\_\_

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